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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/471,920	12/23/1999	KAMERAN AZADET	10-2	8106

7590                    09/25/2003  
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FAIRFIELD, CT 06824

EXAMINER
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PHU, PHUONG M

ART UNIT	PAPER NUMBER
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2631

DATE MAILED: 09/25/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Advisory Action</b>	<b>Application No.</b>	<b>Applicant(s)</b>
	09/471,920	AZADET ET AL.
	<b>Examiner</b>	<b>Art Unit</b>
	Phuong Phu	2631

--The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

THE REPLY FILED 09 September 2003 FAILS TO PLACE THIS APPLICATION IN CONDITION FOR ALLOWANCE. Therefore, further action by the applicant is required to avoid abandonment of this application. A proper reply to a final rejection under 37 CFR 1.113 may only be either: (1) a timely filed amendment which places the application in condition for allowance; (2) a timely filed Notice of Appeal (with appeal fee); or (3) a timely filed Request for Continued Examination (RCE) in compliance with 37 CFR 1.114.

PERIOD FOR REPLY [check either a) or b)]

- a)  The period for reply expires 3 months from the mailing date of the final rejection.
- b)  The period for reply expires on: (1) the mailing date of this Advisory Action, or (2) the date set forth in the final rejection, whichever is later. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of the final rejection.  
ONLY CHECK THIS BOX WHEN THE FIRST REPLY WAS FILED WITHIN TWO MONTHS OF THE FINAL REJECTION. See MPEP 706.07(f).

Extensions of time may be obtained under 37 CFR 1.136(a). The date on which the petition under 37 CFR 1.136(a) and the appropriate extension fee have been filed is the date for purposes of determining the period of extension and the corresponding amount of the fee. The appropriate extension fee under 37 CFR 1.17(a) is calculated from: (1) the expiration date of the shortened statutory period for reply originally set in the final Office action; or (2) as set forth in (b) above, if checked. Any reply received by the Office later than three months after the mailing date of the final rejection, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

1.  A Notice of Appeal was filed on \_\_\_\_\_. Appellant's Brief must be filed within the period set forth in 37 CFR 1.192(a), or any extension thereof (37 CFR 1.191(d)), to avoid dismissal of the appeal.
2.  The proposed amendment(s) will not be entered because:
  - (a)  they raise new issues that would require further consideration and/or search (see NOTE below);
  - (b)  they raise the issue of new matter (see Note below);
  - (c)  they are not deemed to place the application in better form for appeal by materially reducing or simplifying the issues for appeal; and/or
  - (d)  they present additional claims without canceling a corresponding number of finally rejected claims.

NOTE: See Continuation Sheet.

3.  Applicant's reply has overcome the following rejection(s): \_\_\_\_\_.
4.  Newly proposed or amended claim(s) \_\_\_\_ would be allowable if submitted in a separate, timely filed amendment canceling the non-allowable claim(s).
5.  The a) affidavit, b) exhibit, or c) request for reconsideration has been considered but does NOT place the application in condition for allowance because: (see Attachment).
6.  The affidavit or exhibit will NOT be considered because it is not directed SOLELY to issues which were newly raised by the Examiner in the final rejection.
7.  For purposes of Appeal, the proposed amendment(s) a) will not be entered or b) will be entered and an explanation of how the new or amended claims would be rejected is provided below or appended.

The status of the claim(s) is (or will be) as follows:

Claim(s) allowed: 50-55.

Claim(s) objected to: 2,4,19,20,23 and 25.

Claim(s) rejected: 1,3,5-18,21,22,24,26-38,47-49 and 56-59.

Claim(s) withdrawn from consideration: \_\_\_\_\_.

8.  The proposed drawing correction filed on \_\_\_\_ is a) approved or b) disapproved by the Examiner.
9.  Note the attached Information Disclosure Statement(s) ( PTO-1449) Paper No(s). \_\_\_\_\_.
10.  Other: Attachment

**PHOUNG PHU**  
**PRIMARY EXAMINER**

*phuong phu 9/23/03*

Phuong Phu  
Primary Examiner  
Art Unit: 2631

Continuation of 2. NOTE: The limitation addition and/or limitation deletion to claims 13 and 26-30 in the Amendment filed on 9/8/03 raise new issues that would change the scope of the invention originally claimed and previously prosecuted. Therefore, it would require further consideration and search.

**ATTACHMENT**

This Attachment is responsive to the Applicant's Response filed on 9/8/03.

The applicant mainly argues that:

- (i) The finality of the action set forth in the Office Action issued on 6/27/03 is pre-mature, and it should be withdrawn because the new grounds of rejection set forth in that Office Action were not necessitated by the applicant's amendments; and
- (ii) Reference Zhong et al (5,970,104), previously cited, does not teach or suggest step/means of pre-computing a branch metric, as recited in independent claims 1, 18, 24, 38, 47, 56 and 59.

Regarding to part (i), the examiner respectfully disagrees. The new grounds of rejection set forth in that Office Action, issued on 6/27/03, were necessitated by the applicant's amendments filed on 6/2/03. The allowability of claims 1, 3, 5-18, 21, 22, 24, 26-38, 47-49 and 56-59, which was determined in the previous office action issued on 3/7/03, had been withdrawn because of the new grounds of rejection set forth in the Office Action, issued on 6/27/03, due to the applicant's amendment filed on 6/2/03, (for details, see reasons for the rejection set forth in that Office Action). Based on the above rationale, the finality of the action set forth in the Office Action issued on 6/27/03 is still maintained.

Regarding to part (ii), the examiner also disagrees. The rejection to the claims is based on limitations recited in the claims wherein claims 1, 24, 47 and 56 recite step/means of "precomputing branch metrics", and claims 18, 38 and 59 recite step/means of "precomputing one-dimensional branch metrics for each dimension of the multi-dimensional signal. As per claims 1, 24, 47 and 56, see Zhong et al, figure 1 and 3A, and related texts, he discloses step/means (120) for pre-computing branch metrics wherein step/means (120) precomputes and

stores possible combinations of branch metrics  $\lambda_{ik,n} + \lambda_{kj,n+1}$  (see col. 4, lines 13-62) which are used to precompute stored branch metrics (116), and step/means (120) then selects branch metrics (116) and provides them, as weights, to the ACS (114) (see col. 3, lines 10-14 and col. 6, lines 37-43). As per claims 18, 38 and 59, also see figure 1 and 3A, and related texts, he discloses step/means (120) for precomputing branch metrics ( $I1+Q1, \dots, \sim I1+Q1, I2+Q2, \dots, \sim I2+\sim Q2$ ) for each dimensional signal I and Q (see col. 4, lines 29-49) and combining said branch metrics into possible combined branch metrics  $\lambda_{ik,n} + \lambda_{kj,n+1}$  (see (334) of figure 3A) which are then used to precompute stored branch metrics (116). Further, claims 1, 18, 24, 38, 47, 56 and 59 do not have other limitations to make the claimed step/means of pre-computing branch metrics distinguishable from Zhong et al step/means of pre-computing branch metrics. Based on the above rationale, it is believed that the limitations of claims are still met and therefore, the rejections are still maintained.

Phuong Phu

Primary Examiner

09/23/03



**PHOUNG PHU**  
**PRIMARY EXAMINER**